

ABSTRACT OF THE DISCLOSURE

Disclosed and claimed are compositions for inducing in a bovine host an immunological response against bovine respiratory syncytial virus or bovine viral diarrhea virus containing at least one plasmid that contains and expresses *in vivo* in a bovine host cell nucleic acid molecule(s) having sequence(s) encoding bovine respiratory syncytial virus F protein, or G protein, or F and G proteins; or, at least one plasmid that contains and expresses *in vivo* in a bovine host cell nucleic acid molecule(s) having sequence(s) encoding bovine viral diarrhea virus E2 protein, or C, E1 and E2 proteins, or E1 and E2 proteins. Methods and kits employing such compositions are also disclosed.

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